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Canadian Forestry Service-Maritimes
TECHNICAL NOTE

FOREST INSECTS AND DISEASES IN KEJIMKUJIK NATIONAL PARK IN 1987

Personnel of the Forest Insect and Disease Survey regularly survey national parks for forest insect and disease conditions. Some of the conditions encountered in Kejimkujik National Park in 1987 are discussed briefly below.

Gypsy moth is a major pest of forest and shade trees in the northeastern United States, southern Ontario and southern Quebec. This insect was first found in western Nova Scotia in 1983 when a pupal case was discovered. In 1986, a fresh egg mass was found near Grafton Lake. In 1987, 75 adult pheromone traps were placed in the Park, as part of the province-wide gypsy moth monitoring program. A total of 575 moths were captured in these traps, with an average of 8 moths captured per trap. An old egg mass and a pupal case were found during the fall survey in a hardwood stand near the parking lot of the Snake Lake hiking trail. Intensified monitoring for this insect will continue in 1988. All Park visitors who find suspected gypsy moth should report them to Park personnel.

Oak leafroller and **oak leaf shredder** continued to cause varying degrees of defoliation, ranging from 25 to 87%, in oak stands throughout the Park. The oak leafroller was again responsible for most of the damage. This continuing loss of foliage, during the past number of years, has resulted in twig and branch mortality, ranging from 10 to 30% in the upper crowns of trees.

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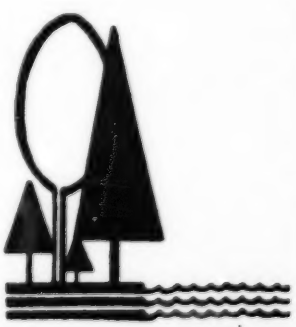

Canadian Forestry Service - Maritimes
P.O. Box 4000, Fredericton, N.B. E3B 5P7
P.O. Box 667, Truro, N.S. B2N 5E5
P.O. Box 190, Charlottetown, P.E.I. C1A 7K2

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Pine leaf adelgid requires two coniferous hosts (spruce and white pine) to complete its complicated life cycle. The insect causes a gall formation at the base of spruce buds in one year and the following year the insect flies to the white pine where it feeds on the new shoots. Damage to the spruce is usually not serious but the feeding on the white pine causes the shoots to droop, turn red, and die. If population levels on pine are high, tree mortality can occur. Population levels increased in the Park and elsewhere in Nova Scotia in 1987. Damage in the Park ranged from 20 to 100% of the shoots being infested. Red, drooping shoots on white pine were common throughout the Park in the fall and will still be visible in the spring as more shoots die.

Birch leafminer larvae feed between the epidermal layers of the leaf and produce a blotchy mine which turns reddish brown as the season progresses, giving heavily infested trees a scorched appearance. Patches of light and moderate leaf browning were observed on young wire birch throughout the Park. Some of the most severely damaged trees, with up to 47% of their leaves mined, were located on the main road near the Park Administration Office.

White pine weevil larvae feed on the inner bark of the leaders of young, open-growing pines and spruces, with a preference shown for white pine and Norway spruce. Infested leaders usually turn red, assume a distinctive shepherd's crook shape, and die. White pine weevil damage, ranging from 4 to 35% of the trees affected, was present throughout the Park.

Porcupine feeding continues to injure and kill young tamarack, black spruce, and white pine throughout the Park. Damage was also observed in planted red pine on the north side of the Mersey River near Mill Falls, where 24% of the red pine were affected.

Premature yellowing of white birch was observed along the main Park road and was especially noticeable near the Park Administration area. This premature yellowing of foliage was also observed on tamarack, largetooth aspen and white birch in other parts of western Nova Scotia and has been attributed to the unusually dry weather experienced in Nova Scotia during the summer of 1987.

Witch-hazel cone gall aphid forms long conical galls on the leaves of witch-hazel, but does not cause any serious damage to the trees. These galls were very common this year on understory witch-hazel throughout the Park.

Spruce budworm populations in the Park were very low in 1987 and this trend is expected to continue in 1988.

A. Wayne MacKay
Forest Insect and Disease Survey

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